

**ABSTRACT**

5 A pump assembly 1, 33, 200 adapted for continuous flow pumping of blood. In a particular form the pump 1, 200 is a centrifugal pump wherein the impeller 100, 204 is entirely sealed within the pump housing 2, 201 and is exclusively hydrodynamically suspended therein as the impeller rotates within the fluid 105 urged by electromagnetic means external to the pump cavity 106, 203.

10 Hydrodynamic suspension is assisted by the impeller 100, 204 having deformities therein such as blades 8 with surfaces tapered from the leading edges 102, 223 to the trailing edges 103, 224 of bottom and top edges 221, 222 thereof.